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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/923,107	08/06/2001	William S. Yerazunis		9557

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Patent Department
Mitsubishi Electric Research Laboratories, Inc.
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EXAMINER

PATEL, SHEFALI D

ART UNIT PAPER NUMBER

2621

DATE MAILED: 10/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/923,107	Applicant(s) YERAZUNIS ET AL.	
	Examiner Shefali D Patel	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-5, 7, 8, 10-12, 15-20 and 23-29 is/are rejected.
- 7) ☒ Claim(s) 6, 9, 13, 14, 21 and 22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/6/2001</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 14 is objected to because of the following informalities: Claim 14 line 5, the word "ransom" ought to be "random." Also, claim 14 line 5 states "synchronizing the second random select signal to **the first and select signal**." "the first and select signal" is unclear. Perhaps, the applicant ought to delete the word "and." Appropriate correction is required.
2. Claim 29 is objected to because of the following informalities: claim 29 line 1, please delete "wherein the 25" from the preamble. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. Claim 12 recites the limitation "the first image" and "the second image" in line 2 of claim 12. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

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such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 7-8, 11, 15, 18-20, 25, and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tourai (US 6,784,887) in view of Hiroaki (US 6,661,425).

With regard to **claim 1** Tourai discloses a method for displaying an image only to an authorized user (display 102, col. 1 lines 55-58), comprising: generating a data image (image forming unit 103, and image generator 1003, col. 2 lines 43 and 48); generating a mask image (i.e., dummy image generator 1004 at col. 2 line 48), (wherein the mask image is a negation of the data image); selecting the data image or the mask image according to a select signal (col. 3 lines 11-17, col. 5 lines 28-36); and sequentially displaying the selected images on a display device (displaying on the display area 102, col. 4 lines 19-30).

Note that Tourai, does not expressly disclose the mask image as a negation of the data image. However, Tourai discloses the mask image (i.e., the dummy image) to be a mosaic pattern image or an edge extraction image. It would have been obvious matter of design choice to modify the Tourai's reference by having the mask image as a negation of the data image since applicant has not discloses that having the mask image as a negation of the data image solves any stated problem (specification on page 2 line 25 to page 3 lines 1-7) or is for any particular purpose (specification on page 1 line 9 to page 2 lines 1-2) and it appears that the 'dummy image' of Tourai would perform equally well with having a third party (i.e., unauthorized user) prevented from viewing the image data (as disclosed in Tourai: col. 6 lines 30-35).

Nevertheless, Hiroaki discloses the mask image as a negation of the data image at col. 28 lines 5-30. Tourai and Hiroaki are combinable because they are from the same field of endeavor, i.e., Image display/processing. At the time of the invention, it would have been obvious to a

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person of ordinary skill in the art to combine the teaching of Hiroaki with Tourai. The motivation for doing so is to prevent the unauthorized user from viewing the image data. Therefore, it would have been obvious to combine Hiroaki with Tourai to obtain the invention as specified in claim 1.

With regard to **claim 7** Hiroaki discloses a color image and the negation is done independently for each color channel of the color image (col. 28 lines 5-11).

With regard to **claim 8** Hiroaki discloses gamma-correcting each color channel at col. 14 lines 31-36.

With regard to **claim 11** Tourai discloses select signal generated by a random generator (the select signal is randomly generating the image on the display unit until a third party (i.e., unauthorized user) is viewing the image, then the select signal make sure that the 'dummy' image is displayed).

With regard to **claim 15** Hiroaki discloses negating each pixel of the mask image (col. 28 lines 5-30); and sequentially displaying the selected pixels on a display device (displays 122 and 123, Figure 1).

Claim 18 recites identical features as claim 11. Thus, arguments similar to that presented above for claim 11 is equally applicable to claim 18.

With regard to **claim 19** Hiroaki discloses a video images in video memory at col. 12 lines 48-63 and each of these images are negated to produce corresponding mask images at col. 28 lines 5-30.

Claim 20 recites identical features as claim 1 except claim 20 is a method claim that has the mask image as a combination of the data image and a public image. Thus, arguments similar

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to that presented above for claim 1 (see, the design choice arguments) is equally applicable to claim 20.

Claim 25 recites identical features as claim 1 except claim 25 is an apparatus claim. Thus, arguments similar to that presented above for claim 1 is equally applicable to claim 25. Note the apparatus in Tourai's: Figures 1-2.

With regard to **claim 27** Tourai discloses the data and mask images (dummy images) selected periodically (col. 3 lines 11-37).

Claim 28 recites identical features as claim 11. Thus, arguments similar to that presented above for claim 11 is equally applicable to claim 28.

With regard to **claim 29** Hiroaki discloses image including plurality of pixels and each pixel of the data image negated serially (col. 28 lines 5-30).

8. Claims 2-5, 16, 23, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tourai (US 6,784,887) in view of Hiroaki (US 6,661,425) as applied to claims 1, 7-8, 11, 15, 18-20, 25, and 27-29 above, and further in view of Popovich (US 6,421,109).

With regard to **claim 2** Tourai (as modified by Hiroaki) discloses all of the claimed subject matter as already discussed above in claim 1 and the arguments are not repeated herein, but are incorporated by reference. Tourai or Hiroaki does not expressly disclose the shutter device as disclosed in claim 2. Popovich discloses opening/shutting the optical shutter device as disclosed at col. 19 lines 37-64. Tourai, Hiroaki, and Popovich are combinable because they are from the same field of endeavor, i.e., image displaying/processing. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teaching of

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Popovich with Tourai and Hiroaki. The motivation for doing so is to perceive resolution of a display device according to the privileges given to users. Therefore, it would have been obvious to combine Popovich with Tourai and Hiroaki to obtain the invention as specified in claim 2.

With regard to **claim 3** Popovich discloses ferro-electric liquid crystal polarization at col. 19 lines 60-64.

With regard to **claims 4-5** It would have been obvious matter of design choice to modify any of the references above by having the displaying, the opening, and the shutting synchronized by a wire link/wireless since applicant has not discloses that having the displaying, the opening, and the shutting synchronized by a wire link/wireless solves any stated problem (specification on page 2 line 25 to page 3 lines 1-7) or is for any particular purpose (specification on page 1 line 9 to page 2 lines 1-2).

Claim 16 recites identical features as claim 2. Thus, arguments similar to that presented above for claim 2 is equally applicable to claim 16.

Claim 23 recites identical features as claim 2. Thus, arguments similar to that presented above for claim 2 is equally applicable to claim 23.

Claim 26 recites identical features as claim 2. Thus, arguments similar to that presented above for claim 2 is equally applicable to claim 26.

9. Claims 10, 17, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tourai (US 6,784,887) in view of Hiroaki (US 6,661,425) as applied to claims im1, 7-8, 11, 15, 18-20, 25, and 27-29 above, and further in view of Ogawa (US 6,018,331).

With regard to **claim 10** Tourai (as modified by Hiroaki) discloses all of the claimed subject matter as already discussed above in claim 1 and the arguments are not repeated herein,

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but are incorporated by reference. Tourai or Hiroaki does not expressly alternately selecting the data and mask images according to clock cycles as claimed in claim 10. Ogawa discloses selecting the images according to the clock cycles as disclosed at col. 4 lines 19-29. Tourai, Hiroaki, and Ogawa are combinable because they are from the same field of endeavor, i.e., image displaying/processing. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teaching of Ogawa with Tourai and Hiroaki. The motivation for doing so is to have sufficient time to write to the display area the image being selected as suggested by Ogawa at col. 3 lines 29-47. Therefore, it would have been obvious to combine Ogawa with Tourai and Hiroaki to obtain the invention as specified in claim 10.

Claim 17 recites identical features as claim 10. Thus, arguments similar to that presented above for claim 10 is equally applicable to claim 17.

Claim 24 recites identical features as claim 10. Thus, arguments similar to that presented above for claim 10 is equally applicable to claim 24.

10. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tourai (US 6,784,887) in view of Hiroaki (US 6,661,425) as applied to claims 1, 7-8, 11, 15, 18-20, 25, and 27-29 above, and further in view of Popovich (US 6,421,109) as applied to claims 2-5, 16, 23, and 26 above, and further in view of Ogawa (US 6,018,331).

Claim 17 recites identical features as claim 10. Thus, arguments similar to that presented above for claim 10 is equally applicable to claim 17.

Allowable Subject Matter

11. Claims 6, 9, and 21-22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The closest prior art to Tourai, Hiroaki, Popovich, and Ogawa are directed to a method for displaying an image as disclosed in independent claims 1, 20, and 25.

However, the closest prior art fails to disclose anything about the synchronization according to a phase of the select signal as disclosed in claim 6; and, each input pixel of each color image has an intensity in a range from 0 to 255, and each output pixel is determined by: $output = 255((input / 255)^{1/\gamma}) + 0.5$ as disclosed in claim 9. Further, the closest prior art fails to disclose the random generator operating according to an internal seed value and a real-time supplied value as disclosed in claim 13; and, the data image P is scaled and off-set according to $\alpha P + A$, where α and A are first scaling and -offset parameters, and wherein a secret image is scaled and off-set according to β and B, where β and B are second scaling and -offset parameters, and wherein the combining adds the scaled and off-set data and secret images to produce the mask image as disclosed in claim 21. It is for these reasons in combination with all the other elements of the claim that claims 6, 9, 13, and 21 would be allowable if rewritten in independent form including all of the limitation of the base claim and any intervening claims. Claim 22 depends on claim 21 and is allowable for the same reason as claim 21.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 6,128,049; US 5,629,984; US 5,583,674; US 5,063,602.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shefali D Patel whose telephone number is 703-306-4182. The examiner can normally be reached on M-F 8:00am - 5:00pm (First Friday Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo H Boudreau can be reached on 703-305-4706. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


DANIEL MIRIAM
PRIMARY EXAMINER

September 27, 2004

Shefali D Patel
Examiner
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